



O. H. M. S.

*W. J. Gerald*  
Deputy Minister.

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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT  
OTTAWA, CANADA  
BULLETIN No. 179  
TINCTURE OF GINGER (TINCTURA ZINGIBERIS)

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# LABORATORY

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### INLAND REVENUE DEPARTMENT

OTTAWA, CANADA.

BULLETIN No. 179.

#### TINCTURE OF GINGER    TACTURA ZINGIBERIS

OTTAWA, March 30, 1909.

WM. HINSWORTH, Esq.,  
Acting Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report upon 75 samples purchased of tincture of ginger during the month of January of this year. All the inspectoral districts of Canada are represented.

This report has regard solely to the strength of the alcohol used in these preparations, which were obtained in drug shops, and should conform to the requirements of the pharmacopœias.

The British pharmacopœia demands the employment of 90 per cent. spirit; the United States pharmacopœia demands alcohol of 94·9 per cent.; both percentages have regard to volume.

It will be seen that sixty-one (61) samples constituting above 80 per cent. of the collection, contain alcohol of above 80 per cent. strength in the finished product. These may be looked upon as essentially complying with pharmacopœal requirements, allowing for volatilization of alcohol in opening bottles in dispensing.

The remaining fourteen (14) samples are as follows:—

District.	Number.	Alcohol.
Prince Edward Island .....	{ 31455	77·20
	{ 31456	71·94
Quebec.....	{ 36813	76·22
	{ 36814	72·64
	{ 36815	76·50
St. Hyacinthe .....	{ 943	70·40
	{ 22907	74·82
Ottawa.....	{ 22908	72·52
	{ 22909	49·96
Kingston.....	{ 39440	*59·72
Toronto....	{ 36171	66·30
	{ 37562	†63·92
	{ 37564	75·24
Vancouver.....	{ 37565	†43·78

\* Sold as essence.    † made from fld extract of ginger.

As pointed out in Bulletin 110 (Oct. 1899), alcoholic preparations of ginger are known as Tinctures, Essences and Extracts. The tincture is the only one of these which is recognised officially by the British pharmacopœia. The United States pharmacopœia (8th revision) describes a fluid extract of ginger, made with alcohol of the same strength as that contained in the tincture, while the quantity of ginger used is five times as much as in the preparation of the tincture. It is possible that a satisfactory tincture might be made from this fluid extract, by dilution with alcohol; but the pharmacopœia does not authorize preparation of the tincture in this way; and it is not to be taken as proved that a tincture so made could properly be substituted for the official tincture. Under no circumstances could the use of a weaker alcohol in dilution be justified.

Essence of ginger is not a pharmacopœal preparation; and should not be dispensed. As a mode of supplying ginger for culinary purposes, the essences have a proper place in the grocery trade.

It will be seen that one of the samples low in alcohol (No. 39440) is sold as an essence of ginger, and should not have been accepted by our inspector. Two others (Nos. 22909 and 36171) contain less than 70 per cent. alcohol, and cannot by any reasonable interpretation be looked upon as coming up to pharmacopœal requirements. Numbers 37562 and 37565 are stated to be made from the Fluid Extract. Even were such a method of preparing the tincture allowable, the samples in question have been made by dilution with an alcohol much below the strength required by the pharmacopœia. They must be regarded as adulterated under the Act.

I beg to recommend the publication of this report as Bulletin No. 179.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,  
*Chief Analyst.*

# BULLETIN No. 179—TINCTURE OF GINGER.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.					Remarks and Opinion of the Chief Analyst.
				Quantity.	Cent.			Sp. Gr. of Sample.	Sp. Gr. of Distillate to equal Vol.	Difference.	Alcohol p. c. by Weight.	Alcohol p. c. by Volume.	

## DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.

1909.													
Jan. 12	Tincture of Ginger	33836	J. McD. Taylor, Halifax, N.S.	4 oz.	30	Vendor	.....	0.8280	0.8267	0.0013	88.48	92.16	
" 13	"	33837	C. A. Barnstead, Halifax, N.S.	4 "	30	Unknown	.....	0.8454	0.8449	0.0005	81.40	86.64	
" 15	"	33838	C. E. Huggins, Halifax, N.S.	4 "	30	Vendor	.....	0.8397	0.8386	0.0012	83.88	88.60	
" 20	"	33839	Crowe Bros., Truro, N.S.	4 "	30	"	.....	0.8276	0.8270	0.0016	88.36	92.04	
" 20	"	33840	W. H. Stevens, Dartmouth	4 "	35	"	.....	0.8272	0.8251	0.0021	89.12	92.64	

## DISTRICT OF PRINCE EDWARD ISLAND—THEO. MOORE, INSPECTOR.

Jan. 8	Tincture of Ginger	31453	J. G. Jamieson, Charlottetown	4 oz.	40	Vendor	.....	0.8545	0.8528	0.0017	78.20	84.02	
" 8	"	31454	Reddin Bros., Charlottetown	4 "	40	Vendors	.....	0.8261	0.8239	0.0022	89.58	92.96	
" 11	"	31455	P. N. Enman, Summerside	4 "	35	Vendor	.....	0.8766	0.8713	0.0046	70.32	77.20	Doubtful.
" 11	"	31456	McFadyen & McLellan, Summerside	4 "	60	Can. Drug Co., St. John, N. B.	.....	0.8896	0.8851	0.0045	64.82	71.94	"
" 14	"	31457	Gillis & Sons, Charlottetown	4 "	40	Nat. Drug Co., Halifax.	.....	0.8415	0.8385	0.0030	83.88	89.60	

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

Jan.	7	Tincture of Ginger	29887	Nat. Drug & Chem. Co., Ltd., 4 oz.	44	Vendors.	0.8259	0.8270	0.0029	88.26	92.04
"	11	"	29888	St. John, N.B.	35	"	0.8249	0.8259	0.0020	90.00	93.28
"	16	"	29889	William Hawker & Son, St. 4	40	"	0.8407	0.8401	0.0006	83.27	88.12
"	26	"	29890	Hunt & McDonald, Fredericton 4	40	"	0.8253	0.8287	0.0006	87.69	91.54
"	28	"	29891	J. McD. Cooke, Moncton 4	40	Vendor.	0.8650	0.8639	0.0011	73.42	79.88
				Chipman, Smith & Co., 4	30	Vendors.					
				Bathurst, N.B.							
							Sample is essence of ginger: is much stronger than the official B. P. Tincture.				

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

Jan.	11	Tincture of Ginger	36813	A. Martineau, Quebec.	4 oz.	30	Dr. E.L. Morin, Quebec.	0.8826	0.8720	0.0057	69.25	76.22	Doubtful.
"	11	"	36814	Jos. Masson, Quebec.	4 "	25	Vendor	0.8840	0.8833	0.0016	65.29	72.64	"
"	12	"	36815	G. P. Plamondon, Quebec.	4 "	40	"	0.8765	0.8732	0.0033	69.54	76.50	"
"	12	"	36816	P. C. Lachepreviere, Quebec.	4 "	40	C. E. Frosst & Co., Montreal.	0.8242	0.8194	0.0048	91.21	94.16	
"	12	"	36817	C. P. Delisle, Quebec.	4 "	25	Vendor.	0.8257	0.8256	0.0002	87.38	91.30	

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

Jan.	11	Tincture of Ginger	941	Dr. Larose, St. Ours	3 oz.	25	Vendor.	0.8485	0.8425	0.0066	82.19	87.26	
"	14	"	942	W. H. Griffith, Sherbrooke.	4 "	40	The Nat. Drug & Chemical Co., Montreal.	0.8453	0.8434	0.0019	82.00	87.12	
"	19	"	943	L. E. Brown, Granby	3 "	30	Vendor.	0.8094	0.8089	0.0005	62.86	70.40	Doubtful.
"	20	"	944	Wright & Co., St. Jean.	4 "	30	"	0.8257	0.8238	0.0019	62.93	69.00	
"	21	"	946	Pharmacie St. Hyacinthe	4 "	30	"	0.8284	0.8283	0.0001	87.82	91.06	

\* Essence of ginger.

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				Quantity.	Cent.			Sp. Gr. of Sample.	Sp. Gr. of Distillate to equal Vol.	Difference.	Alcohol p.c. by Weight.	Alcohol p.c. by Volume.	

## DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

Jan.	6	Tincture of Ginger	32676 J. J. Wemfield, 408 St. Lawrence St., Montreal.	4 oz.	45	Nat. Drug & Chem. Co.	.....	0.8200	0.8270	0.0070	86.36	92.04	
"	8	"	32677 A. Goyette, 141 St. Catherine St., Montreal.	4 "	35	Lyman, Knox & Co., Montreal.	.....	0.8280	0.8247	0.0033	88.27	92.74	
"	14	"	32678 Dr. J. A. Clement, Lachine, P. Q.	4 "	45	Not known.	.....	0.8359	0.8335	0.0024	77.08	83.06	
"	14	"	32679 E. A. Ranson, Lachine, P. Q.	4 "	45	Vendor.	.....	0.8591	0.8582	0.0009	75.95	82.10	
"	22	"	32680 G. H. Cristie, Lachine, P. Q.	4 "	30	Lyman, Sons & Co., Montreal.	.....	0.8636	0.8582	0.0054	75.95	82.10	

## DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

Jan.	12	Tincture of Ginger	22906 W. J. Hughes, Carleton Place.	4 oz.	40	Vendor	Sold as tincture of ginger.	0.8228	0.8208	0.0020	86.19	90.44	
"	12	"	22907 D. H. McIntosh, M.D., Carleton Place.	4 "	40	"	"	0.8800	0.8777	0.0023	67.67	74.82	Doubtful.
"	18	"	22908 The Standard Drug Co., Ottawa.	4 "	35	Vendors	"	0.8849	0.8836	0.0013	65.17	72.52	"
"	18	"	22909 W. F. Garland, Ottawa.	4 "	35	Vendor	"	0.9359	0.9337	0.0022	41.95	49.96	Adulterated.
"	20	"	22910 Hull Medical Hall, Hull.	4 "	40	Vendors	"	0.8346	0.8337	0.0009	85.77	90.08	

# DISTRICT OF KINGSTON—JAS. HOGAN, INSPECTOR.

	8	Tincture of Ginger	39436 W. W. Gibson, Kingston.	4 oz.	40	Vendor	0.8319	0.8287	0.0032	87.69	91.54
11	"	"	39437 D. Blecker, Belleville.	4 "	50	"	0.8309	0.8287	0.0042	88.48	92.16
11	"	"	39438 A. L. Glen, Belleville.	4 "	30	"	0.8301	0.8349	0.0042	77.33	83.26
11	"	"	39439 W. J. B. Davison, Port Hope.	4 "	28	"	0.8407	0.8304	0.0053	85.12	89.58
12	Essence of Ginger.		39440 McDermid & Jury, Peterboro.	4 "	40	"	0.9211	0.9138	0.0073	51.88	459.72 Collected by mistake.

# DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

1903.	7	Tincture of Ginger	36171 The Broadway Drug Co., Toronto	4 oz.	35	Lyman Bros., Ltd. Toronto.	0.9040	0.8860	0.0051	58.55	65.30	Adulterated.
"	12	"	36172 Haworth & Co., Ltd., Hamilton	4 "	35	Vendors	0.8287	0.8287	0.0020	88.48	92.16	
"	12	"	36173 R. C. Reynolds, Hamilton	4 "	30	"	0.8314	0.8287	0.0027	87.69	91.54	
"	15	"	36174 F. W. Jeffs, St. Catharines	4 "	40	Lyman Bros., Ltd. Toronto.	0.8462	0.8457	0.0005	81.68	86.28	
"	19	"	36175 W. H. Lee Toronto	4 "	40	Vendor	0.8275	0.8275	0.0000	78.16	91.50	

# DISTRICT OF LONDON—T. K. JOD, INSPECTOR.

Jan.	11	Spirit of Ginger . . .	30567	W. A. McConnell, Clinton . .	4 oz.	40	Nat. Chem. Co., London.	0.8484	0.8442	0.0042	81.68	86.28
"	12	Tincture of Ginger	30571	W. B. Barley, Mitchell . . .	4 "	40	W. B. Barley, Mit- chell.	0.8423	0.8414	0.0009	92.77	87.74
"	16	"	30586	Borgadus & Co., Guelph . .	4 "	40	Vendors . . . . .	0.8508	0.8501	0.0007	79.28	84.50
"	16	"	30587	J. B. Broadfoot, Guelph . . .	4 "	40	J. B. Suttleworth, Toronto.	0.8287	0.8279	0.0008	88.00	91.78
"	16	"	30589	J. D. McKee, Guelph . . . .	4 "	40	Lyman Bros., To- ronto.	0.8549	0.8541	0.0008	77.67	87.58

+Orby's Essence.

† Orby's Essence.



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				Quantity.	Cents.			Sp. Gr. of Sample.	Sp. Gr. of Distillate to Equal Vol.	Difference.	Alcohol p.c. by Weight.	Alcohol p.c. by Volume.	

## DISTRICT OF WINDSOR—JNO. TALBOT, INSPECTOR.

Jan. 7	Tincture of Ginger	34737	R. T. Geary, Sarnia	4 oz.	30	Vendor	.....	0.8233	0.8190	0.0043	p.c. 91.36	p.c. 94.26	
" 8	"	34745	J. McRobie, Petrolia	4 "	40	"	.....	0.8694	0.8594	0.0100	75.41	81.64	
" 8	"	34746	J. E. Platt, London	6 "	60	Not known.	.....	0.8338	0.8329	0.0009	86.08	90.32	
" 11	"	34749	R. N. Thurtell, Ingersoll	3 "	25	Vendor.	.....	0.8272	0.8267	0.0005	88.48	92.16	
" 11	"	34752	J. G. Gayfer, Ingersoll	4 "	35	"	.....	0.8397	0.8329	0.0068	86.08	90.32	

## DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.

Jan. 12	Tincture of Ginger	35831	Vrooman & McCullough, Winnipeg.	4 oz.	25	Not known.	.....	0.8723	0.8601	0.0122	75.09	81.34	
" 12	"	35832	The Clarendon Pharmacy, Winnipeg.	4 "	35	Davis & Lawrence Co., Montreal.	.....	0.8584	0.8555	0.0029	77.08	83.06	
" 13	"	35833	Higginbotham & Son, Virden.	4 "	20	Vendors.	.....	0.8382	0.8377	0.0005	84.20	88.86	
" 14	"	35834	F. Woodhull & Co., Hartney.	4 "	45	"	.....	0.8338	0.8329	0.0009	86.08	90.32	
" 21	"	35835	Brooking's Drug Store, Winnipeg.	4 "	30	"	.....	0.8340	0.8340	0.0000	85.62	89.96	

## DISTRICT OF CALGARY—R. W. FLETCHER, INSPECTOR.

Jan. 15	Tincture of Ginger	35387	Oliver Bros., Calgary	4 oz.	25	Vendors	0 8287	0 8287	0 0000	87 69	91 55
" 29	"	35388	J. H. Lives, Edmonton	4 "	25	Park, Davis & Co., Walkerville.	0 8332	0 8501	0 0051	79 28	84 90
" 29	"	35389	E. M. Carpenter, Edmonton	4 "	40	Vendor	0 8280	0 8280	0 0000	87 96	91 75
" 29	"	35390	Alconquin Pharmacy, Edmonton.	4 "	30	John Wyeth & Bro's Extract, Philadelphia.	0 8253	0 8220	0 0033	90 29	93 50
" 29	"	35391	Edmonton Drug Co., Edmonton.	4 "	50	Edmonton Drug Co., Edmonton.	0 8253	0 8267	0 0056	90 75	93 82

## DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

Jan. 29	Tincture of Ginger	37501	C. Muddell, Vancouver	4 oz.	50	Lyman & Sons, Montreal.	0 8640	0 8621	0 0019	74 18	80 54
" 29	"	37502	Knowlton Drug Store, Vancouver.	4 "	50	Vendor	0 9069	0 9045	0 0055	56 09	63 92
" 29	"	37503	Central Drug Store, Vancouver	4 "	50	"	0 8293	0 8287	0 0006	87 69	91 54
" 29	"	37504	Owl Drug Store, Vancouver	4 "	40	Not known	0 8785	0 8766	0 0019	68 13	75 24
" 29	"	37505	McDuffee Bros. & Co., Vancouver.	4 "	40	Vendors	0 9675	0 9457	0 0118	36 72	43 78

## DISTRICT OF VICTORIA—D. OSULLIVAN, INSPECTOR.

Jan. 27	Tincture of Ginger	39284	W. Jackson & Co., Victoria	4 oz.	35	Bass Bros. & Stephenson, London, Eng.	0 8287	0 8283	0 0004	87 85	91 66
" 27	"	39285	W. S. Terry, Victoria	4 "	40	Vendor	0 8514	0 8491	0 0023	79 68	85 24
" 27	"	39286	D. E. Campbell, Victoria	4 "	35	"	0 8479	0 8471	0 0008	80 50	85 90
" 27	"	39287	F. J. Williams, Victoria	4 "	50	"	0 8438	0 8426	0 0012	82 31	87 38
" 27	"	39288	Geo. A. Fraser, Victoria	4 "	40	"	0 8280	0 8247	0 0033	88 27	92 74